IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF PENNSYLVANIA

ARLANXEO CANADA, INC.,	:	
Plaintiff	:	**No. 1:21-cv-01843**
	:	
v.	:	**(Judge Kane)**
	:	
KAYDON RING & SEAL, INC.,	:	
Defendant	:	

MEMORANDUM

Before the Court are Defendant Kaydon Ring & Seal, Inc. ("Defendant")'s fully briefed Motions to Preclude the Expert Reports, Testimony, and Opinions of Itzhak Green (Doc. No. 43), Geoff R. Hall (Doc. No. 42), and Bradley D. Wolf (Doc. No. 44) and Plaintiff Arlanxeo Canada, Inc. ("Plaintiff")'s fully briefed Motion to Exclude the Testimony and Report of Doctor Richard W. Klopp (Doc. No. 40). Neither Plaintiff nor Defendant requested a hearing on the motions. Upon careful consideration of the briefing and exhibits associated with the motion, and the applicable law, and for the reasons provided herein, the Court will deny Defendant's Motions to Preclude the Expert Reports, Testimony, and Opinions of Itzhak Green, Geoff R. Hall, and Bradley D. Wolf, and will deny Plaintiff's Motion to Exclude the Testimony and Report of Doctor Richard W. Klopp.

I. BACKGROUND[1]

On October 29, 2021, Plaintiff filed a complaint against Defendant asserting claims of breach of contract (Count I), breach of warranty (Count II), and negligence (Count III) arising out of the following facts. Plaintiff runs a butyl rubber production facility in Sarnia, Ontario, Canada ("Sarnia Facility"). (Doc. No. 1 ¶ 6.) To produce the butyl rubber, the Sarnia facility

[1] The following factual allegations are taken from Plaintiff's Complaint. (Doc. No. 1.)

utilizes two (2) refrigeration compressors, known as the C2 Compressor and C3 Compressor (collectively "Compressors"). (Id. ¶ 8.) The Compressors are comprised of "vital components" called mechanical seals ("Seals"). (Id. ¶ 9.) If the Seals fail, then the Compressors fail, and if the Compressors fail, then the Sarnia facility's rubber production is "greatly diminished." (Id. ¶¶ 11, 13.) Defendant originally designed and manufactured the eleven (11) Seals utilized by Plaintiff (four (4) in use and seven (7) in reserve). (Id. ¶¶ 14, 16, 17.) Plaintiff contracted with Defendant to repair and refurbish all Seals, and those repairs occurred in 2015 and 2016. (Id.) In 2019, Plaintiff scheduled a major overhaul for the C2 Compressor, a minor overhaul for the C3 Compressor, and an emergency refurbishment of the Seals. (Id. ¶¶ 20, 25–26.) The overhauls took place from about September 2019 to about October 2019. (Id. ¶¶ 27, 30–31, 45.) Both Compressors failed after their respective overhauls. (Id. ¶¶ 30–31, 45.) Plaintiff inspected the Compressors and found Seals had failed in both. (Id. ¶¶ 32, 46.) A cascade of compressor failures followed between October 2019 and May 21, 2021. (Id. ¶¶ 35, 37, 48, 41–42, 59, 64, 68, 70.) The C2 Compressor failed eight (8) times and the C3 Compressor failed two (2) times. (Id.)

Plaintiff noted that the Seals caused each of the compressor failures and notified Defendant. (Id. ¶¶ 32–33, 36, 38, 41–42, 53–55, 59, 61, 64–65, 66, 68.) After the C2 Compressor's fourth failure, Plaintiff sent it to a service center in Houston, Texas for a root cause analysis, which Defendant participated in. (Id. ¶¶ 49, 51, 53.) Defendant's personnel uncovered Seal defects and repaired the Seals at its Pennsylvania manufacturing facility before sending them back to Houston for installation. (Id. ¶¶ 53–55.) After the seventh failure, Plaintiff began a transition to a new seal supplier, Flowserve Corporation ("Flowserve"). (Id. ¶ 69.) After the eighth failure, Plaintiff replaced all remaining Seals from Defendant with Seals designed and

manufactured by Flowserve. (Id. ¶¶ 70–71.) Plaintiff's inspection of the Defendant's Seals "indicate that the bushing seal is unbalance[d] as designed, which over time results [in] surface fretting causing the bushing seal to lock-up, stall, and fail." (Id. ¶ 18.) Further, Plaintiff's inspection also revealed that "the design of the Seals are defective in that they lead to waviness, taper, coning, and wear of the mechanical face seal which also results in failure." (Id.)

Defendant filed an answer to the complaint on January 22, 2022. (Doc. No. 6.) The Court conducted a case management conference and set a close of fact discovery date of September 30, 2022. (Doc. No. 12.) However, the parties entered into multiple stipulations to extend the close of fact discovery date (Doc. Nos. 14, 21, 23, 27, 29, 32), before ultimately stipulating to the close of fact discovery date of July 31, 2023 (Doc. No. 32). The Court conducted a post-fact discovery status conference on August 17, 2023, and set a close of expert discovery date of March 1, 2024. (Doc. No. 35.) On February 28, 2024, the Court permitted the parties to conduct the depositions of Dr. Itzhak Green ("Dr. Green") on March 5, 2024, and Dr. Richard Klopp ("Dr. Klopp") on March 25, 2024, as exceptions to the March 1, 2024 close of expert discovery date pursuant to a stipulation filed by the parties. (Doc. Nos. 36–37.) Subsequently, the Court conducted a post-expert discovery conference on April 11, 2024, and set a Daubert motion deadline of May 23, 2024. (Doc. No. 39.)

On May 23, 2024, Plaintiff filed a Motion to Exclude the Testimony and Report of Dr. Klopp (Doc. No. 40) and Defendant filed Motions to Preclude the Reports, Testimony, and Opinions of Geoff R. Hall ("Mr. Hall") (Doc. No. 42), Dr. Green (Doc. No. 43), and Bradley D. Wolf ("Mr. Wolf") (Doc. No. 44). Both parties filed their respective briefs in support of their motions on June 6, 2024. (Doc. Nos. 45, 46, 47, 48.) Plaintiff filed briefs in opposition to Defendant's motions on June 20, 2024, (Doc. No. 50, 51, 52), and Defendant filed a brief in

opposition to Plaintiff's motion on the same date (Doc. No. 49). On July 3, 2024, Plaintiff filed a reply brief in support of its Motion to Exclude the Testimony and Report of Dr. Klopp (Doc. No. 53), and on July 5, 2024, Defendant filed reply briefs in support of its Motions to Preclude the Reports, Testimony, and Opinions of Mr. Hall, Dr. Green, and Mr. Wolf (Doc. No. 54, 55, 56). Having been fully briefed, Plaintiff's Motion to Exclude the Testimony and Report of Dr. Klopp and Defendant's Motions to Preclude the Reports, Testimony, and Opinions of Mr. Hall, Dr. Green, and Mr. Wolf are ripe for disposition.

II. LEGAL STANDARD

Federal Rule of Evidence 702 governs the admissibility of expert testimony. See Fed. R. Evid. 702. Rule 702 states:

> A witness qualified as an expert by knowledge, skill, experience, training, or education, may testify in the form of an opinion or otherwise, if the proponent demonstrates to the court that it is more likely than not: (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue; (b) the testimony is based upon sufficient facts or data, (c) the testimony is the product of reliable principles and methods, and (d) the expert's opinion reflects a reliable application of the principles and methods to the facts of the case.

See id.

As the United States Court of Appeals for the Third Circuit ("Third Circuit") has explained, "Rule 702 embodies a trilogy of restrictions on expert testimony: qualifications, reliability and fit." See Schneider v. Fried, 320 F.3d 396, 404 (3d Cir. 2003). The rule imposes an obligation on district court judges to act as "gatekeepers" to ensure that an expert witness's testimony meets those three threshold requirements before consideration by a jury. See Kumho Tire Co. v. Carmichael, 526 U.S. 137, 147 (1999); Daubert v. Merrell Dow Pharm., Inc., 509 U.S. 579, 597 (1993). In fulfilling its obligation as a gatekeeper, a court exercises discretion

when deciding whether to admit or deny expert testimony. See Gen. Elec. Co. v. Joiner, 522 U.S. 136, 146–47 (1997).

When considering the qualification requirement, a court must discern whether a purported expert has specialized knowledge in a given field. See Pineda v. Ford Motor Co., 520 F.3d 237, 244 (3d Cir. 2008). No particular background or credentials are necessary to establish the requisite specialized knowledge, as "a broad range of knowledge, skills, and training qualify an expert." See In re Paoli R.R. Yard PCB Litig., 35 F.3d 717, 741 (3d Cir. 1994); accord Waldorf v. Shuta, 142 F.3d 601, 627 (3d Cir. 1998) (noting that a proposed expert witness's generalized knowledge or practical experience may be sufficient to qualify him as an expert). Although the Third Circuit has instructed that a court must "eschew [] imposing overly vigorous requirements of expertise," the determination of whether an expert is qualified to testify about a particular topic is not one that has been reduced to a mere formality, as the court's assessment of a proposed expert's qualifications is predominantly a fact-specific endeavor that is governed by the unique circumstances in each case. See Voilas v. Gen. Motors Corp., 73 F. Supp. 2d 452, 456 (D.N.J. 1999) (quoting United States v. Velasquez, 64 F.3d 844, 849 (3d Cir. 1995)).

As for the reliability requirement, the United States Supreme Court has held that the gatekeeping function requires the trial court to "make certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field." See Kumho Tire, 526 U.S. at 152. To meet this requirement, "a litigant has to make more than a prima facie showing that his expert's methodology is reliable," but the "evidentiary requirement of reliability is lower than the merits standard of correctness." See Pineda, 520 F.3d at 244 (quoting In re Paoli, 35 F.3d at 744). The expert's opinion "must be based on the methods and

procedures rather than on subjective belief or unsupported speculation." See In re TMI Litig., 193 F.3d 613, 664 (3d Cir. 1999). "The focus is not upon the expert's conclusions, but rather upon his methodology; the issue is whether the evidence should be excluded because the flaw is large enough that the expert lacks good grounds for his or her conclusions." Burke v. TransAm Trucking, Inc., 617 F. Supp. 2d 327, 331 (M.D. Pa. 2009) (citing In re Paoli, 35 F.3d at 746). When evaluating the reliability of a witness's methodology, a court is guided by several familiar factors drawn from Daubert:

> (1) whether a method consists of a testable hypothesis; (2) whether the method has been subject to a peer review; (3) the known or potential rate of error; (4) the existence and maintenance of standards controlling the technique's operation; (5) whether the method is generally accepted; (6) the relationship of the technique to methods which have been established to be reliable; (7) the qualifications of the expert witness testifying based on the methodology; and (8) the non-judicial uses to which the method has been put.

See In re Paoli, 35 F.3d at 742 n.8. These factors "may or may not be pertinent in assessing reliability, depending on the nature of the issue, the expert's particular expertise, and the subject of his testimony." See Kumho Tire, 526 U.S. at 150. Accordingly, the Rule 702 inquiry is a flexible one, and the court should also take into account any other relevant factors. See Calhoun v. Yamaha Motor Corp., 350 F.3d 316, 321 (3d Cir. 2003).

Under the third requirement—fit—"the expert's testimony must be relevant for the purposes of the case and must assist the trier of fact." See Schneider, 320 F.3d at 404. "Rule 702's helpfulness standard requires a valid scientific connection to the pertinent inquiry as a precondition to admissibility." Daubert, 509 U.S. at 591–92. Indeed, an expert who renders an opinion based on factual assumptions not present in the case or opines on a matter that does not relate to a disputed issue is not relevant and, thus, will not assist the trier of fact, as required by Rule 702. See id. For example:

> The study of the phases of the moon … may provide valid scientific "knowledge" about whether a certain night was dark, and if darkness is a fact in issue, the knowledge will assist the trier of fact. However (absent creditable grounds supporting such a link), evidence that the moon was full on a certain night will not assist the trier of fact in determining whether an individual was unusually likely to have behaved irrationally on that night.

See id. Like the typical relevance inquiry, "the standard for analyzing the fit of an expert's analysis to the case at hand is 'not that high.'" See United States v. Ford, 481 F.3d 215, 219 n.6 (3d Cir. 2007) (quoting In re Paoli, 35 F.3d at 745). However, expert testimony can be powerful and misleading because of the difficulty in evaluating it, and the Third Circuit has cautioned that "district courts should tread carefully when evaluating proffered expert testimony, paying special attention to the relevance prong of Daubert." See id. at 219 n.6.

III. DISCUSSION

A. Defendant's Motion to Preclude the Expert Report, Testimony, and Opinion of Dr. Green

1. The Proposed Expert Report and Testimony of Dr. Green

Plaintiff argues that Defendant breached its contract with Plaintiff, breached warranties, and acted negligently because Defendant "failed to timely perform the repairs and refurbishment within the time period provided by the contracts," "repetitively failing to design, refurbish[,] and repair the Seals," and negligently designing and failing to properly investigate and remedy design defects in the refurbishment process. (Doc. No. 1 ¶¶ 76–77, 81, 85.) To prove those claims, Plaintiff tenders Dr. Green as an expert to opine on the design defects of the Seals and the cause of the seal failures, and the standard of care required and expected of seal manufacturers (which relates to Plaintiff's claim of negligence). (Doc. No. 52 at 5.) As to the first issue, Dr. Green's Report concludes as follows:

> [Defendant's] bushing seal failed recurrently in the C2 and/or C3 Compressors (failed a total of 10 times between September 2019 and May 2021)[.]

> Specifically, the bushing seal in the original [Defendant] design has inherent weaknesses: (1) it is not force-balanced hydraulically[;] (2) it relies on or assumes perfect (i.e., "smooth" or "frictionless") surface conditions between the bushing face and the housing[;] (3) the carbon ring is a hard and brittle material that is unforgiving when the bushing and the shoulder rings come into contact (or impact)[;] (4) such contact wears the shoulder and carbon surfaces, while wear debris escalate wear and degrades the surfaces further[;] (5) the rubbing contact (impact) is known to instigate vibrations[;] and (6) the chrome plated shoulder is inferior (in many aspects) to a tungsten carbides coated shoulder. Hence, the [Defendant] bushing seal has had limited to no ability to accommodate commonly occurring shaft excursions. That inability led to rubbing contact at the bushing seal surfaces that caused severe wear of the entire seal assembly perpetually, and ultimately caused the seals failures [sic].
>
> Machine vibration is common and normal in any practical rotating machinery as they are in the C2 and C3 Compressors. Sporadic vibrations also occurred historically prior to 2019 (i.e., between 2005-2019) according to Siemens' root cause analysis, and such vibrations have not caused seal failures during that period of time (2005-2019). Indeed, third parties involved in the seal investigation failure note that the vibrations briefly peaked during startup but immediately went away — the excitations happen only at speed changes and not during steady-state operation. However, the seal failures were not caused by vibration-related events.

(Doc. No. 43-5 ¶ 134(a)–(c) (cleaned up).)

> As to the second issue, Dr. Green's Report concludes the following:
>
> As discussed above, the Siemens [root cause analysis] made definitive recommendations to replace in the bushing seal the chrome plating with a tungsten carbide coating, and to replace the carbon-graphite with [b]abbitt. Those recommendations are based on current, known, and proven engineering practices. Even though those clear and specific requests had been forwarded to [Defendant], [Defendant] repeatedly declined the requests. [Defendant] has never offered effective solutions to the repeated seal failure problems.
>
> It is field proven (i.e., in the operation of the actual C2 Compressor) that the recommendations as requested by Siemens, AST, and ARLANXEO — and as implemented by Flowserve — had been completely effective in solving the repeated seal failures. Flowserve refurbished a failed Kaydon seal abiding by the said recommendations. That seal had been installed in the same machine (i.e., the same C2 compressor, with all its accessories, bearings, gearbox, coupling, etc.) in which [Defendant] seals had previously failed eight times. However, the Flowserve refurbished seal had functioned without a single seal failure since its installation. It was mainly the [Defendant] bushing seal that had been replaced with the Flowserve bushing seal. The Flowserve refurbished seal included a Babbitted bushing (instead of [Defendant's] carbon-graphite bushing), and it had a tungsten

> carbide coating on the shoulder ring (instead of [Defendant's] chrome plated shoulder). Additional minor changes to the bushing geometry and the inclusion of an O-ring seal have further helped mitigating the seal failure problems. Had [Defendant] made those changes, this [a]ction likely would not have commenced. That is a compelling conclusion that just the revision of the [Defendant] bushing seal has made all other arguments (regarding vibrations, pressure variations, gearbox, coupling, start-up transients, etc.) irrelevant.
>
> Closing observation: [t]here was a machine (the C2 Compressor) with all of its supporting accessories (bearings, gear box, coupling, driving motor) that operated under certain operating conditions, while complying with all of requirements of the compressors manufacturer limits. When [Defendant's] [S]eals, as refurbished by [Defendant], were installed into the machine, those seals failed eight times since the late 2019 to the mid-2021. When a failed [Defendant] seal had been refurbished by Flowserve[] and installed in 2021 in the very same machine (with all its identical accessories, and operating conditions), the seal and the entire machine never failed. That machine (being a "nondiscriminatory object") proves that the [Defendant's] seals as refurbished by [Defendant] were at fault for the entire Compressor trip and shut down, and with it, adversely impacting the plant's rubber production. In my professional opinion, and for the reasons set out above, [Defendant] breached the standard of care required and expected of a reasonable manufacturer, and the seal failures would not have occurred but for that breach.

(Id. ¶ 134(d)–(f) (cleaned up).)

Defendant argues that the testimony and report of Dr. Green should be excluded because Dr. Green's methods utilized in his report are unreliable, and his opinions, which focus upon Defendant's Seals and the standard of care required and expected of a reasonable manufacturer, are an improper fit for the issues in this case. (Doc. No. 46 at 4, 14, 19.) Specifically, Defendant asserts that Dr. Green can neither reliably opine on the root cause of the ten compressor failures nor opine on the standard of care required and expected of a reasonable manufacturer because he did not conduct a root cause analysis and has no training, formal education, or experience to qualify him as an expert on the standard of care expected or required of a reasonable manufacturer. (Id. at 5–6.) Defendant also argues that Dr. Green's method of a root cause analysis that involves conducting surface measurements and looking at machine parts, deformation, wear tracks, and failed components is not a root cause analysis and does not satisfy

the Daubert factors. (Id. at 17.) Specifically, Defendant argues that: (1) Dr. Green's method does not consist of a testable hypothesis; (2) Dr. Green's method is not subject to peer review; (3) there is no known potential rate of error because Dr. Green's method is not a method and merely focuses on seal design; (4) there are no standards that control Dr. Green's methodology; (5) Dr. Green's methodology is idiosyncratic and is not generally accepted; (6) Dr. Green chose not to apply a generally accepted and reliable method, which is not expertise; (7) Dr. Green is not qualified to testify on a root cause analysis because it is not his area of expertise; and (8) there are no other cases of Dr. Green's method being applied by anyone else or outside a judicial setting. (Id. at 18.) Defendant further argues that Dr. Green's opinions do not fit this case because his opinion that Defendant "breached the standard of care required and expected of a reasonable manufacturer" is unsupported by either his own expertise (which is not in standards of care expected or required of a reasonable manufacturer) nor his experience. (Id. at 19.)

In response, Plaintiff asserts that Dr. Green should not be excluded because Dr. Green completed a root cause analysis on the Compressors, his method is reliable, his qualifications support his opinion on the root cause of the seal failures and the standard of care required of a seal manufacturer, and his opinions fit the case. (Doc. No. 52 at 12, 14, 20.) Plaintiff argues that Dr. Green completed a root cause analysis that involved interviewing Plaintiff's representatives, reviewing all the evidence available to date, inspecting the Compressors personally, and verifying and reviewing the root cause analyses of third parties. (Id. at 13.) In support of its argument that Dr. Green's method is reliable, Plaintiff asserts that Dr. Green followed the scientific method, evaluated all potential causes of the Defendant's seal failures, performed his own root cause analysis, and evaluated the various opinions of third parties to conclude "to a reasonable degree of scientific certainty that the [Defendant's] [] Seals had inherent weaknesses

in six technical aspects." (Id. at 16.) Plaintiff further argues that, contrary to Defendant's assertion, Dr. Green is qualified based on his internationally recognized expertise on seal design, machinery, rotor dynamics,[2] and tribology,[3] which he has translated into over one hundred and fifty (150) papers and reports. (Id. at 18.) With regard to fit, Plaintiff further argues that Dr. Green's opinions fit the instant case because the case concerns a breach of contract, breach of warranty, and negligence arising out of seal failures. (Id. at 21.) Finally, Plaintiff asserts that Dr. Green should be allowed to opine on the standard of care of a reasonable seal manufacturer because Dr. Green has worked with manufacturers to provide input on mechanical seal production, design, and/or servicing. The Court first reviews Dr. Green's qualifications before addressing the reliability of his methodology and the "fit" of his opinions to the facts of this case.

2. Qualifications

Defendant argues that Dr. Green is not qualified to offer expert testimony about the root cause of the compressor failures and a manufacturer's standard of care because he has no experience, training, or academic background in the topic of root cause analyses or the standards of care of reasonable manufacturers. (Doc. No. 46 at 18–19.) Although Defendant's argument regarding Dr. Green's lack of qualification is mentioned in connection with its reliability

[2] Rotor dynamics is the study of "the dynamic behavior of rotating blades in high-speed and multi-load excitation environments, considering factors such as centrifugal stiffening, spin softening, and Coriolis force." See ScienceDirect, Rotor Dynamics, https://www.sciencedirect.com/topics/physics-and-astronomy/rotor-dynamics#definition (last visited Feb. 8, 2025).

[3] Tribology is the study of "interacting surfaces in relative motion and with associated matters (as friction, wear, lubrication, and the design of bearings)." See Tribology, Oxford English Dictionary, https://www.oed.com/dictionary/tribology_n?tab=meaning_and_use#17803703 (last visited Feb. 8, 2025).

argument,[4] the Court construes the argument as a broader attack on Dr. Green's qualifications to serve as an expert. (Doc. No. 46 at 18.) Therefore, the Court will briefly review Dr. Green's qualification to serve as an expert in this case pursuant to Rule 702.

Dr. Green's Report states that he received his Bachelor of Science, Master of Science, and Doctor of Philosophy degrees from the Technion-Israel Institute of Technology in 1977, 1980, and 1984, respectively. (Doc. No. 43-5 ¶ 10.) Dr. Green has over forty-four (44) years of experience in research and development of sealing and bearing technologies, and in the general fields of rotor dynamics and tribology. (Id. ¶ 11.) In addition to his doctoral thesis titled "Dynamics of Mechanical Seals" and his master's thesis "Dynamic Analysis of a Flexibly Mounted Gas Thrust Bearing," Dr. Green has authored and co-authored one hundred and fifty (150) papers and reports in tribology and design, rotor dynamics, integrated diagnostics,[5] dynamic analysis of mechanical face seals, mechanics of viscoelastic dampers,[6] among other topics. (Id. ¶¶ 11–13.) Additionally, Dr. Green has published over seventy (70) journal-refereed

[4] Defendant challenges Dr. Green's qualifications with regard to his opinions as to the root cause of the compressor failure as an indication of the unreliability of his expert testimony under factor seven of the Paoli factors. (Doc. No. 46 at 18.)

[5] Integrated diagnostics is defined as a structured process by which one can "maximize[] the effectiveness of diagnostics by integrating pertinent elements, such as testability, automatic and manual testing, training, maintenance aiding, and technical information as a means for providing a cost effective capability to unambiguously detect and isolate all faults known or expected in items and to satisfy system mission requirements." See Defense Acquisition University, Integrated Diagnostics, Glossary, https://www.dau.edu/glossary/integrated-diagnostics (last visited Feb. 11, 2025).

[6] A viscoelastic damper is a type of passive control device used to "dissipate strain energy in the form of heat when subjected to [] deformation [from the application of a repeated load] in dynamic load conditions." Melina Bosco, Andrea Floridia & Pier Paolo Rossi, Proposal of a Design Procedure for Steel Frames with Viscoelastic Dampers, 2024 Applied Sci. 14, 6937, 1, https://www.mdpi.com/2076-3417/14/16/6937.

papers concerning seals and sealing technology. (Id. ¶ 14.) In 1998, Dr. Green was awarded the Best Sealing Technology Paper by the Society of Tribologists and Lubrication Engineers ("STLE"). (Id. ¶ 17.)

Dr. Green has received the most prestigious awards of two divisions of the American Society of Mechanical Engineers ("ASME"): (1) the Machine Design Award "for outstanding achievements and dedication to excellence in design education, innovation, service and research" in 2006; and (2) the Mayo D. Hersey Award for "distinguished and continued contributions over a substantial time period to the advancement of the science and engineering of tribology." (Id. ¶ 18.) Moreover, Dr. Green has served in numerous positions in technical industry societies such as: Technical Associate Editor for the ASME Transactions Journal of Tribology; Associate Editor for STLE, Tribology Transactions; Director of the STLE Board; and Chair of the Executive Committee of the ASME Tribology Division. Dr. Green currently serves as an Advisory Board Member of "'Machines,' an MDPI open access journal."[7] (Id. ¶ 19.)

As for work experience, Dr. Green has been a professor and course administrator at the George W. Woodruff School of Mechanical Engineering at the Georgia Institute of Technology from 1988 to present. (Id. ¶ 20.)[8] Dr. Green taught two graduate classes on a yearly basis on fluid film lubrication and rotor dynamics, worked as an instructor and course administrator for a continuing education course on fluid sealing technology from 1988 to 2009, and from 1988 to

[7] MDPI is the name of an open-access publishing website based in Basel, Switzerland. See Overview, MDPI, https://www.mdpi.com/about (last visited Feb. 11, 2025).

[8] Although Dr. Green's statement of his qualifications does not include information about whether he is still employed at the Georgia Institute of Technology, a review of the university's website reveals that Dr. Green is still a faculty member. Itzhak Green, Ga. Inst. Tech.: George W. Woodruff Sch. of Mechanical Engineering Fac. & Staff, https://www.me.gatech.edu/faculty/green (last visited Feb. 11, 2025).

2001 taught "all of the mechanics and design subjects for the Professional Engineering Refresher Course for the PE Exam." (Id. ¶¶ 20–21.) Additionally, since 1985, Dr. Green has consulted for at least twelve (12) different companies including: Scientific Atlanta; Inpro Seal, Inc.; Georgia Pacific Pump Co.; Bard Urological Division; Stone Container; Robins, Kaplan & Ciresi; Schlumberger, Pratt & Whitney; General Dynamics; Quest Air; Eaton; and Intel Corp. (Doc. No. 52-7 at 27–28.) For those companies, Dr. Green consulted on seal design, failure diagnosis, and trade studies on mechanical seals, among other topics. (Id.) Dr. Green has received a patent for his design of a "Secondary Gas/Liquid Mechanical Seal Assembly" (id.) and has also developed computer codes for mechanical seals that were acquired by research labs and by companies that design and manufacture mechanical seals and turbomachinery (Doc. No. 43-5 ¶ 15).

Upon consideration of all of the above, the Court concludes preliminarily that Dr. Green appears qualified to offer testimony as an expert on the subject of the cause of the Seal failures and the standard of care required and expected of manufacturers of Seals. Accordingly, the Court turns to an assessment of the reliability and fit of the two opinions proffered by him in this case.

3. Dr. Green's Opinion on the Cause of the Seal Failures

Plaintiff proffers Dr. Green to opine on the cause of the seal failures. (Doc. No. 52 at 5.) As explained supra, Dr. Green determined that the Seals failed due to defects in the design of the Seals which led to, among other things, "rubbing contact at the bushing seal surfaces that cause severe wear of the entire seal assembly perpetually." (Doc. No. 43-5 ¶ 134(b).) The Court reviews the reliability of Dr. Green's opinion on the cause of the seal failures before turning to the "fit" of his opinion on the cause of the seal failures.

a. Reliability

As set forth more fully supra, the reliability inquiry focuses on an expert's methodology and whether he or she has good grounds for the opinion offered. See In re Paoli, 35 F.3d at 746. In re Paoli sets forth numerous factors to guide the Court in evaluating the reliability of a witness's methodology as follows:

> (1) whether a method consists of a testable hypothesis; (2) whether the method has been subject to peer review; (3) the known or potential rate of error; (4) the existence and maintenance of standards controlling the technique's operation; (5) whether the method is generally accepted; (6) the relationship of the technique to methods which have been established to be reliable; (7) the qualifications of the expert witness testifying based on the methodology; and (8) the non-judicial uses to which the method has been put.

See id. at 742 n.8. However, those factors "are neither exhaustive nor applicable in every case." See Pineda, 520 F.3d at 248 (citing Kannankeril v. Terminex Int'l, Inc., 128 F.3d 802, 806–07 (3d Cir. 1997) and Kumho Tire, 526 U.S. at 151).

In Defendant's brief in support of its motion, Defendant argues that Dr. Green's opinion on the cause of the seal failures is not reliable because "[Dr. Green] concedes that he did not conduct a root cause analysis on the failures…for each or any seal failure." (Doc. No. 46 at 14–15.) Specifically, Defendant asserts that Dr. Green failed to use a generally accepted root cause analysis such as "the Six Sigma root cause analysis method, a Fishbone diagram, Pareto Charts, Fault Tree Analysis, as well as the 8D Process." (Id. at 16.) Plaintiff counters that Dr. Green conducted his own root cause analysis that involved looking at the design of the seals, the reports from the root cause analyses of Siemens and other companies, analyzing the force balance on the mechanical seal, and applying the concepts to the force balance on the bushing seal. (Doc. No. 52 at 13.)

Upon careful review of Dr. Green's Report, the briefs of the parties, and the relevant authorities, the Court concludes that Dr. Green's opinion that inherent weaknesses in the design of Defendant's bushing seal caused the bushing seal to fail and the Compressors to fail is based upon reliable methodology. Dr. Green derived his opinion on the bushing seal's faulty design from the following sources: (1) personal inspection of four Seals (all designed by Defendant but two of the four were refurbished by Flowserve Corporation); (2) personal inspection of the Compressors after the eighth seal failure of the C2 Compressor and the second seal failure of the C3 Compressor; (3) personal interviews with Plaintiff's representatives; (4) the Siemens Root Cause Analysis Report; (5) the IMR Test Labs Report; (6) the AST Turbo Report; and (7) the Kaydon Report. (Doc. Nos. 52-1 ¶¶ 31–36, 134; 52-8 at 17.) Therefore, the Court agrees with Plaintiff that Dr. Green's Report presents a methodology that is beyond ipse dixit because Dr. Green reviewed the four reports that were written before his hiring, personally inspected the Seals and Compressors, interviewed Plaintiff's personnel, and then combined that information with his knowledge and expertise on seal designs to come to his conclusion that the cause of the failures was related to the bushing seal design. See David v. Black & Decker (US) Inc., 629 F. Supp. 2d 511, 515–16 (W.D. Pa. 2009) (concluding that a mechanical engineer's report and testimony satisfied the reliability prong of Rule 702 because the engineer's opinion was based on inspection of the object, testing of a substantially similar object, and using recognized data to develop opinions on the relevant parts of the object). Accordingly, the Court concludes that Dr. Green's Report and opinion regarding the cause of the seal failures satisfies the second prong of reliability of Rule 702 and turns to the "fit" of the opinion to the issues of this case.

b. Fit

Next, this Court considers whether Dr. Green's opinion "fits" the case. The fit requirement is ultimately a question of whether the expert's opinions are "connected to the question at issue." See In re Paoli, 35 F.3d at 745 n.13. Although the standard is "not that high," the standard is nonetheless "higher than bare relevance." See id. at 745.

Defendant argues that Dr. Green's opinion does not fit the instant case because Dr. Green analyzed the Seals instead of conducting a full root cause analysis of the Compressors. (Doc. No. 46 at 18.) Defendant further states that "the issue in this case is not whether [its] [S]eals could have been designed differently, but whether [its] [S]eals were the root cause of each of the ten compressor failures." (Id.) Plaintiff contends that all three claims asserted against Defendant relate to Defendant's "failure to appropriately design, refurbish, and repair [its] [] Seals," and Dr. Green provides an opinion on the cause of the seal failures. (Doc. No. 52 at 20–21.)

The Court agrees with Plaintiff that Dr. Green's opinion on the seal failures "fits" this case. From the beginning, Plaintiff noted that the failure of the Compressors was tied to the Seals. (Doc. No. 1 ¶¶ 32, 46 ("Upon inspection, [Plaintiff] observed that the C2 Compressor failed as a result of a failure of a drive-end Seal designed and refurbished by [Defendant]… [The October 25, 2019] failure [of the C3 Compressor] occurred because the non-drive-end Seal failed to operate properly.").) Further, the compressor failures and inquiries into those failures revealed that the Seals were sustaining damage and were failing. (Id. ¶¶ 18, 38, 42, 48, 54–55, 59, 61, 64–65, 67–68.) Therefore, this case concerns the Seals and the cause of their failures. Returning to the expert report and testimony of concern in this motion, Dr. Green's Report and testimony go directly to the cause of the seal failures. Although Defendant argues that Dr. Green's Report and opinions focus on the design of the Seals (Doc. No. 46 at 18–19), the Court finds that the

report and opinions explain that the design of the Seals are the reason why the Seals failed (Doc. No. 52-1 at 40–41). Accordingly, the Court concludes that Dr. Green's Report and opinion on the Seals will assist the trier of fact in determining the issues in the case because they go directly to the issues at the heart of Plaintiff's complaint.

3. Dr. Green's Opinions on the Standard of Care of a Reasonable Seal Manufacturer

Plaintiff proffers Dr. Green to opine on the standard of care of a reasonable seal manufacturer. (Doc. No. 52 at 11.) Specifically, as elucidated supra, Dr. Green opined that Defendant's refusal to implement the recommendations by Siemens, AST Turbo, and Plaintiff to redesign the Seals with a babbitted bushing seal and a tungsten carbide coating on the shoulder ring, in the face of ten seal failures, indicates Defendant's breach of the standard of care of a reasonable manufacturer. (Doc. No. 43-5 ¶ 134(d)–(f).)

a. Reliability

Defendant argues that Dr. Green's opinion on a seal manufacturer's standard of care should be precluded because Dr. Green did not cite to what those standards of care are, did not provide any basis for his standard, and used no methodology against which to measure Defendant's conduct. (Doc. No. 46 at 20.) On the other hand, Plaintiff argues that Dr. Green's opinion on a seal manufacturer's standard of care is reliable because Dr. Green's Report explained what a reasonable and prudent manufacturer would have done, i.e., made the recommended changes to the Seals, and his methodology of making the recommended changes to the Seals was tested by Flowserve. (Doc. No. 52 at 22–23.)

As with the bushing seal design opinion, the Court also finds a sufficient methodology for Dr. Green's opinion that Defendant breached the standard of care required by a manufacturer. Dr. Green relies on the following sources: (1) the Siemens Root Cause Analysis Report, which

recommended replacement of the bushing seal's chrome plating and carbon-graphite; (2) the AST Turbo Report; (3) Plaintiff's recommendation to Defendant to make changes to the seal design; (4) the refusals by Defendant to fulfil the requested recommendations; and (5) the personal inspection of the four (4) seals. (Doc. No. 52-1 ¶ 134(d)–(f).) Dr. Green thus derived his opinion on Defendant's violation of the standard of care expected of a seal manufacturer from the combination of the recommendations from Siemens, AST Turbo, and Plaintiff to change the seal design, his inspection of the Seals himself, and his knowledge of current, known, and proven engineering practices, and his expertise consulting seal manufacturers. As the Supreme Court in Kumho Tire Co., Ltd. v. Carmichael held, "[Daubert's] list of factors was meant to be helpful, not definitive… those factors do not necessarily apply even in every instance in which the reliability of scientific testimony is challenged." See Kumho Tire Co., Ltd., 526 U.S. at 141. Although Dr. Green's methodology may not satisfy every Daubert factor, Dr. Green's opinions as to standard of care are based on his review of prior reports, personal inspection of the Seals and Compressors, interviews with relevant parties, Defendant's statements, and his training, experience, and education, all of which are "'an objective anchor for his conclusions' beyond mere training and experience." See Pease v. Lycoming Engines, No. 10-cv-00843, 2011 WL 6339833, *9 (M.D. Pa. Dec. 19, 2011) (quoting Booth v. Black & Decker, Inc., 166 F. Supp. 2d 215, 218–22 (E.D. Pa. 2001)) (finding an expert's report and opinions on the cause of a plane crash, manufacturing, and standards of care reliable where such opinions are anchored in facts beyond an expert's training and experience). Accordingly, the Court concludes that Dr. Green's opinion on the standard of care expected of a reasonable manufacturer is reliable and turns to an assessment of whether his opinion "fits" the issues in this case.

b. Fit

Defendant asserts that Dr. Green's opinion on the standard of care does not fit this case because this is a case that involves breach of contract, breach of warranty, and negligence, which do not require a showing of a breach of a standard of care. (Id. at 20 n.3.) Plaintiff responds that because this case involves the claims of breach of contract, breach of warranty, and negligence arising out of Defendant's failure to appropriately design, refurbish, and repair its Seals, Dr. Green's opinion on the standard of care fits this case. See (Doc. No. 52 at 20–21).

Upon careful review of Dr. Green's Report, the briefs of the parties, and the relevant authority, the Court concludes that Dr. Green's opinion on the standard of care "fits" the case. The Court is unpersuaded by Defendant's assertion that proof of breach of a standard of care is not relevant to Plaintiff's claim of negligence. Defendant's argument that Plaintiff's negligence claim "is based upon the allegation that [its] [S]eal[s] w[ere] defective" (Doc. No. 46 at 20 n.3), ignores Plaintiff's second basis for its negligence claim: "[Defendant's] negligent and defective design of the Seals, in combination with its failure to properly investigate and remedy such defects during the refurbishment process, caused the C2 and C3 Compressors to fail on numerous occasions" (Doc. No. 1 ¶ 85 (emphasis added)). In order to prove negligence under Pennsylvania law, Michigan law, or Ontario law, Plaintiff must show that Defendant owed a duty of care.[9] See Grove v. Port Auth. of Allegheny Cty., 218 A.3d 877, 888–89 (Pa. 2019) (listing the elements of negligence as duty, breach, causation, and actual damages); Case v. Consumer

[9] There remains an outstanding conflict of laws question in this case as to whether Pennsylvania law, Michigan law, or Ontario law governs the claims in this case. (Doc. Nos. 1 ¶ 21; 45 at 5 n.1.) Although Plaintiff placed the Court on notice of the choice of law issue, see (id.), the parties have not yet presented the issue to the Court for determination. Therefore, out of an abundance of caution, the Court considers whether Dr. Green's opinion on the standard of care "fits" the claim of negligence under Pennsylvania law, Michigan law, or Ontario law.

Powers Co., 463 Mich. 1, 6 (2000) (listing the elements of a prima facie case of negligence as duty, breach, causation, and damages); 1688782 Ontario Inc. v. Maple Leaf Foods Inc., et al., [2020] 3 S.C.R. 504, 506 (Ca.) (listing the elements of negligence in Ontario as: (1) defendant owed plaintiff a duty; (2) that defendant's conduct breached the standard of care; (3) plaintiff sustained damage; (4) plaintiff's damage was caused, in fact and in law, by the defendant's breach). Thus, no matter what law applies to this case, a trier of fact must take into account the standard of care required and expected of a reasonable manufacturer to determine if Defendant breached that duty. Accordingly, the Court also concludes that Dr. Green's opinion as to Defendant's breach of the standard of care required and expected of a manufacturer will assist the trier of fact in determining the issues in this case because it goes directly to the issues at the heart of Plaintiff's claim of negligence. Therefore, the Court will deny Defendant's Motion to Exclude the Expert Report, Testimony, and Opinion of Dr. Green. The Court turns to Plaintiff's Motion to Exclude the Testimony and Report of Dr. Klopp.

B. Plaintiff's Motion to Exclude the Testimony and Report of Dr. Klopp

1. The Proposed Expert Report and Testimony of Dr. Klopp

Defendant tenders Dr. Klopp as an expert to rebut Dr. Green's report and opinions that defects in the Seals' design caused their failures (the first issue in this case). (Doc. No. 49 at 5–6 (describing Dr. Klopp as Defendant's rebuttal witness charged to assess the sufficiency of Dr. Green's root cause determination).) The report proffered by Dr. Klopp ("Dr. Klopp's Report") concludes as follows:

> The seal failures are a symptom and not a cause of the compressor failures. The seals in the compressor operated without incident for nearly 40 years until the overhaul of the subject C2 compressor in 2019. To a reasonable degree of engineering certainty, something about the major overhaul triggered the subsequent seal failures.

> Due to a lack of evidence, no one can identify the specific change or changes in the compressor during the overhaul leading to the subsequent seal failures, and for that reason alone, there is insufficient evidence to conclude the seals are defective to a reasonable degree of engineering certainty.
>
> Given the repeated issues with other components, it is likely that Arlanxeo did not properly operate, maintain, or repair the subject compressors.
>
> Dr. Green failed to do a proper failure analysis and omitted the contribution of failures of other components within the compressor, including bearing wipes, housing warpage requiring re-machining, rotor damage requiring weld repairs, diaphragm damage requiring replacement, and contaminated oil systems.
>
> Dr. Green appears to have sufficient knowledge to help others understand the issues, but his opinions are not based on sufficient facts because he has omitted key facts, his opinions are not the product of the application of reliable principles and methods, namely, the scientific method, and his opinions do not reflect a reliable application of the scientific method because of the failure to apply it to key facts, including those that contradict his opinions.

(Doc. No. 41 at 9.)

Plaintiff argues that the testimony and report of Dr. Klopp should be excluded because he is not qualified, his opinion lacks any reliable methodology, and it does not "fit" the issue in this case. (Doc. No. 48 at 7.) As to Dr. Klopp's qualifications, Plaintiff asserts that Dr. Klopp lacks "experience, education, and/or expertise on mechanical oil seal design and dynamics." (Id. at 14.) Therefore, Plaintiff asserts that Dr. Klopp is unqualified to opine in this case because this case concerns mechanical oil seals. (Id.) Next, Plaintiff argues that Dr. Klopp's testimony and report lack "any reliable methodology." (Id. at 16.) Specifically, Plaintiff asserts that Dr. Klopp did not perform a root cause analysis, perform a substantive calculation, take measurements of the seals, interview any witnesses aside from Defendant's own representatives, inspect the Seals or Compressors, or visit the Sarnia facility. (Id.) Instead, Plaintiff asserts that Dr. Klopp "simply regurgitat[ed] and parrot[ed] [] the hearsay reports of other third parties that were involved in the [o]il [s]eal failures." (Id.) Regarding the "fit" of Dr. Klopp's testimony and report, Plaintiff

argues that Dr. Klopp would not assist a trier of fact because he ignored critical facts and data when opining on the seal failures and compressor shutdowns and failed to lay eyes on the Siemens root cause analysis of the C3 Compressor. (Id. at 17–18.) Thus, Plaintiff asserts that Dr. Klopp's testimony and report are unmoored from the evidence of record, lack a factual foundation, and should be excluded. (Id. at 18.) Finally, Plaintiff asserts that, should Dr. Klopp's testimony not be excluded, his testimony should be limited to rebutting Dr. Green's opinions because he presented "new and untimely affirmative expert opinions and theories relating to causation that should have been issued in an affirmative expert report on or before October 27, 2023." (Id. at 19.)

In contrast, Defendant argues that Dr. Klopp is qualified to rebut Dr. Green's opinions because Dr. Klopp is a mechanical engineer with more than forty (40) years of experience, which includes conducting root cause analysis failures. (Doc. No. 49 at 15.) Defendant asserts that Dr. Klopp opines on Dr. Green's root cause analysis of the compressor failures, and therefore his education and experience in conducting root cause failure analyses of turbomachinery are directly relevant here. (Id.) As to Dr. Klopp's methodology, Defendant argues that Dr. Klopp is a rebuttal expert whose purpose is to analyze "the facts[,] opin[e] on [,] and rebut[] Dr. Green's opinions on the root cause of the compressor failures"—which Dr. Klopp did. (Id. at 19.) Further, Defendant asserts that Dr. Klopp need not have conducted his own root cause analysis because he is a rebuttal expert. (Id. at 20.) Therefore, Dr. Klopp's methodology of "applying his expertise, and reviewing the record, to critique Dr. Green's opinions" is reliable. (Id. at 21.) Defendant asserts that Dr. Klopp's testimony "fits" the case because Dr. Klopp "opines on the root cause analysis of the compressor failures" which is "at the heart of the case[] and is one of the key disputed factual issues." (Id. at 22.) Finally, Defendant argues that Dr. Klopp's opinions

are within the bounds of a rebuttal expert because Dr. Klopp's opinion that "the Seals did not cause the Compressors to shut down" and "something about the major overhaul triggered the subsequent seal failures" are not new and affirmative theories of defect but refutations of Dr. Green's opinion. (Id. at 23–24.) The Court first addresses Plaintiff's challenge to Dr. Klopp's qualifications to serve as an expert in this case before addressing Plaintiff's arguments as to reliability and fit.

2. Qualifications

Plaintiff contends that Dr. Klopp has no education, experience, or knowledge in mechanical oil seals and therefore should not be qualified because Dr. Klopp cannot opine meaningfully on the Seals which are the issue at the heart of this case. (Doc. No. 53 at 3.) On the other hand, Defendant argues that Dr. Klopp has experience and expertise in mechanical engineering and root cause analyses which makes him more than qualified to opine and rebut the root cause failure analysis and opinions of Dr. Green. (Doc. No. 49 at 13–16.)

Dr. Klopp received his Bachelor of Science degree in mechanical engineering, two Masters of Science degrees in mechanical engineering and applied mathematics, and a Doctor of Philosophy degree in Mechanical Engineering. (Doc. No. 41 at 11.) Dr. Klopp holds professional engineer licenses in California, Texas, Washington, Michigan, and Nevada, and he is a fellow of the American Society of Mechanical Engineers. (Id.) Dr. Klopp has been practicing in the field of mechanical engineering for over forty (40) years, including with his present employer Exponent. (Id.) At Exponent, Dr. Klopp is a Principal Engineer, a position in which he has investigated "failures of all kinds." Of note, Dr. Klopp possesses experience in failure analysis and in the engineering and application of turbomachinery and their parts, which is derived from work experience conducting failure analyses on compressors, steam and gas

turbines, generators, and other machinery of that sort. (Id. 11–12.) Dr. Klopp has also published extensively within the last ten years on topics related to mechanical engineering including co-authoring six (6) reports, eighteen (18) academic papers, six (6) book chapters, and other presentations and lectures. (Id. at 61–70.)

Upon consideration of the above, the Court concludes preliminarily that Dr. Klopp appears qualified to offer rebuttal testimony regarding the cause of the seal failures based on his expertise in mechanical engineering and failure analyses. Although Plaintiff asserts that Dr. Klopp's experience and expertise have nothing to do with mechanical oil seals, the Court finds that Dr. Klopp's knowledge, experience, and expertise in the realm of mechanical engineering and root cause failure is appropriate for the trier of fact's determination of the issue of the cause of the compressor failures. Therefore, the Court finds that Dr. Klopp meets the qualification requirement of Rule 702 and turns to the reliability of Dr. Klopp's opinions.

3. Reliability

As set forth more fully above, the reliability inquiry focuses on an expert's methodology and whether he or she has good grounds for the opinion offered. See In re Paoli, 35 F.3d at 746. In re Paoli sets forth numerous factors to guide the Court in evaluating the reliability of a witness's methodology as follows:

> (1) whether a method consists of a testable hypothesis; (2) whether the method has been subject to peer review; (3) the known or potential rate of error; (4) the existence and maintenance of standards controlling the technique's operation; (5) whether the method is generally accepted; (6) the relationship of the technique to methods which have been established to be reliable; (7) the qualifications of the expert witness testifying based on the methodology; and (8) the non-judicial uses to which the method has been put.

See id. at 742 n.8. However, those factors "are neither exhaustive nor applicable in every case." See Pineda, 520 F.3d at 248 (citing Kannankeril, 128 F.3d at 806–07 and Kumho Tire, 526 U.S. at 151).

In his report, Dr. Klopp states that the scope of his work was to "assess whether Dr. Green had followed proper engineering and scientific methods in developing his conclusions, whether [Dr. Green's] conclusions are supported by the available evidence, and [whether Dr. Green's conclusions] were correct." (Doc. No. 41 at 13.) In accordance with those objectives, Dr. Klopp analyzed Dr. Green's report and related evidence, deposition testimony, and the reports of third parties. See, e.g., (id. at 24 n.14, 25 n.22, 27 n.29, 29–34, 40 n.58, 41 n.73). Ultimately, based on his analysis of those materials, Dr. Klopp determines that Dr. Green's report is erroneous because: (1) Dr. Green fails to conduct a comprehensive root cause analysis; (2) Dr. Green fails to adequately apply the scientific method to his investigation of the cause of the compressor failures; (3) Dr. Green fails to reference specific publications that provide "evidence of relevant experience when making his arguments related to the alleged seal failures;" and (4) Dr. Green fails to base his opinions on sufficient facts. (Id. at 49–59.)

In its brief in support of its motion, Plaintiff argues that Dr. Klopp's opinion is not reliable because "his entire report is simply a regurgitation and parroting of the hearsay reports of other third parties that were involved in the Oil Seal failures—without any attempt to verify the accuracy or reliability of those hearsay reports." (Doc. No. 48 at 16.) Defendant counters that Dr. Klopp is a rebuttal expert and as such his methodology of reviewing the deposition testimony, the exhibits thereto, the third party reports on the compressor failures, and Dr. Green's Report is more than reliable because "'a rebuttal expert has 'no burden to produce models or

methods of their own.'" (Id. at 19 (quoting Rinaldi v. SCA La Goutte, D'Or, No. 16-cv-01901, 2021 WL 4553850, at *15–16 (S.D.N.Y. Sept. 30, 2021)).)

The Court agrees with Defendant that Dr. Klopp's methodology is reliable. The Court notes that the case law Plaintiff relies upon is inapposite because the cases either deal with expert reports and opinions that are not rebuttal reports and opinions or else address a rebuttal report relying on a settlement agreement to calculate to royalty damages. See, e.g., Bruno v. Bozzuto's, Inc., 311 F.R.D. 124, 127–128 (M.D. Pa. 2015) (recording the opinion of the plaintiffs' two expert witnesses as providing a determination on damages and not as a rebuttal of another expert's report); In re TMI Litigation, 193 F.3d 613, 716 (3d Cir. 1999) (reporting expert Douglas Crawford-Brown's report as offering an affirmative opinion on the radiation dose that Three Mile Island residents were exposed to rather than a rebuttal of another expert's report); Fundamental Innovation Sys. Int'l LLC v. Anker Innovations Ltd., No. 21-cv-0039, 2024 WL 2258127, at *4 (D. Del. May 17, 2024) (stating that a litigation settlement agreement used to calculate royalties as a rebuttal to another expert's opinion is not reliable methodology). Those cases and their circumstances are inapposite to the Court's determination here because Dr. Klopp's explicit purpose is to refute and rebut the opinions of Plaintiff's expert Dr. Green—which he has done—and Dr. Klopp's opinions concern the root cause analysis and scientific method applied by Dr. Green to the compressor shutdowns. See (Doc. No. 41 at 13; 49 at 19); Pritchard v. Dow Agro Sciences, 263 F.R.D. 277, 284–85 (W.D. Pa. 2009) (finding that a rebuttal report is permissible "if it contains merely an elaboration of and [is] consistent with an opinion/issue previously addressed in the expert report"). Therefore, although Plaintiff contends that Dr. Klopp's Report is based on third-party reports of others with no independent verification, the Court finds that Dr. Klopp's use of the third-party reports, his knowledge and expertise, Dr. Green's Report, and

evidence in the record constitutes a reliable methodology to rebut and refute Dr. Green's Report and opinions. Next, the Court turns to whether Dr. Klopp's opinions "fit" this case.

4. Fit

The fit requirement is ultimately a question of whether the expert's opinions are "connected to the question at issue." See In re Paoli, 35 F.3d at 745 n.13. Although the standard is "not that high," the standard is nonetheless "higher than bare relevance." See id. at 745.

Plaintiff argues that Dr. Klopp's report and opinions should be excluded because Dr. Klopp "ignores critical facts and data when opining on the cause of the Oil Seal Failures [sic] and Compressor [sic] shutdowns … [and therefore] Dr. Klopp's [opinions] are not based in the evidence of record and lack factual foundation." (Doc. No. 48 at 17–18.) In contrast, Defendant asserts that Dr. Klopp's opinions "fit" this case because "Dr. Klopp opines on the root cause failure analysis of the compressor failures." (Doc. No. 49 at 22.)

The Court agrees with Defendant that Dr. Klopp's opinions "fit" this case. At its core, this case concerns the multiple seal failures and shutdowns of Plaintiff's Compressors and the impact that they had on Plaintiff's business. See (Doc. No. 1 ¶ 24). Plaintiff asserts, through its complaint and expert witness Dr. Green, that the cause of the compressor shutdowns are the Seals that Defendant defectively designed. (Id.; Doc. No. 52-1 ¶ 134(a).) Dr. Klopp's opinion is that Dr. Green misapplied the scientific method, and his conclusions are contradicted by the reports of others, thus Dr. Green's conclusion that the Compressors shut down due to defective Seals is untrustworthy. (Doc. No. 41 at 49.) Put differently, Dr. Klopp's opinions are "connected to the question at issue," see In re Paoli, 35 F.3d at 745 n.13, because his opinions use the evidence in the record to contradict Plaintiff's and Dr. Green's conclusion that the Seals are defective and caused the Compressors to shut down. Accordingly, the Court finds that Dr.

Klopp's testimony and report "fit" the case. Lastly the Court addresses Plaintiff's argument that Dr. Klopp's testimony exceeds the scope of rebuttal testimony.

5. Scope of Dr. Klopp's Rebuttal Testimony

A rebuttal or reply expert report's purpose is "solely to contradict or rebut evidence on the same subject matter identified by another party." See Fed. R. Civ. P. 26(a)(2)(D)(ii); see also Avco Corporation v. Turn and Bank Holdings, Inc., No. 12-cv-01313, 2017 WL 2224915, at *19 (M.D. Pa. May 22, 2017) ("[A] party may only submit an expert rebuttal 'if the evidence is intended solely to contradict or rebut evidence on the same subject matter identified by another party' according to deadlines created by the court."); Withrow v. Spears, 967 F. Supp. 2d 982, 1001 (D. Del. 2013) ("A rebuttal expert or reply report is proper if the intent of the report is "'solely to contradict or rebut evidence on the same subject matter' identified by the opposing party's expert report."). "Such rebuttal and reply expert reports 'may cite new evidence and data so long as the new evidence and data is offered to directly contradict or rebut the opposing party's expert.'" Withrow, 967 F. Supp. at 1002 (quoting Glass Dimensions, Inc. ex rel. Glass Dimensions, Inc. Profit Sharing Plan & Trust v. State St. Bank & Trust Co., 290 F.R.D. 11, 16 (D. Mass. 2013)). However, rebuttal and reply expert reports will be considered improper if they "simply address the same general subject matter as a previously-submitted report, but do not directly contradict or rebut the actual contents of that prior report." See id.

Plaintiff argues that Dr. Klopp is a rebuttal expert, but "Dr. Klopp affirmatively opines that the [Seals] did not cause the [c]ompressor shutdowns … that 'something about the major overhaul triggered the subsequent seal failures[,]' and that 'ARLANXEO did not properly operate, maintain, or repair the subject compressors.'" (Doc. No. 48 at 18–19.) Plaintiff characterizes those opinions as impermissible testimony for a rebuttal expert witness because

those opinions are "new and untimely affirmative expert opinions and theories relating to causation that should have been issued in an affirmative expert report on or before October 27, 2023." (Id.) In Plaintiff's reply brief, Plaintiff identifies eleven affirmative conclusions proffered by Dr. Klopp: (1) "[s]omething about the major overhaul triggered the subsequent seal failures;" (2) "[t]he hydrodynamic lubrication in the compressor routinely broke down … facilitating the seal failures;" (3) "[t]he seals failed as a result of [Arlanxeo's] operation and maintenance and not due to a seal design defect;" (4) "[s]omething about the compressor had changed to trigger … the seal failures which [ensued];" (5) "[t]o a reasonable degree of engineering certainty, something about the major overhaul triggered the subsequent seal failures;" (6) "[t]he hydrodynamic lubrication in the compressor likely caused the seals to fail;" (7) "[t]he evidence points to high forces from shaft radial excursions as being the main cause of the bushing failures;" (8) "[t]he evidence shows that the Kaydon seal failures are a symptom of [Arlanxeo's] actions and inactions;" (9) "[c]learly, something about the [C]ompressors changed at that time which caused the seals to begin failing;" (10) "[Arlanxeo's] operation, maintenance, and repairs caused the seal failures;" and (11) "[t]he repeated seal failures were a symptom of old age." (Doc. No. 53 at 10–11.) Defendant does not dispute Dr. Klopp's status as a rebuttal expert. (Doc. No. 49 at 5, 7, 23–25.) Defendant responds to Plaintiff's argument by stating that Dr. Klopp's opinions are within the proper scope of rebuttal because they "are proffered in direct rebuttal to Dr. Green's opinions on the root cause of the failures." (Id. at 24.)

The Court finds that Dr. Klopp's Report and conclusions properly contradict and rebut Dr. Green's conclusions. The eleven (11) conclusions of Dr. Klopp that Plaintiff lists as improper affirmative conclusions are each responsive and contradictory to Dr. Green's conclusions. For example, conclusions one through seven (1–7), ten (10), and eleven (11)

directly contradict Dr. Green's conclusions that the design of the bushing seal has inherent weaknesses that caused the failure. Compare (Doc. No. 52-1 ¶ 134(b)) with (Doc. No. 53 at 10–11 (listing conclusions one through eleven (1–11))). Dr. Klopp's conclusions one (1), three (3), eight (8), and nine (9) contradict Dr. Green's closing observation that the Compressors "operated under certain operating conditions, while complying with all of requirements [sic] of the compressors manufacturers limits." Compare (Doc. No. 52-1 ¶ 134(f)) with (Doc. No. 53 at 10–11 (listing conclusions one through eleven (1–11))). And, lastly, all eleven (11) conclusions rebut and refute Dr. Green's ultimate conclusion that the design of the Seals caused the failures that in turn caused the Compressor shutdowns, which adversely impacted Plaintiff's rubber production. Compare (Doc. No. 52-1 ¶ 134(f) (stating Dr. Green's ultimate conclusion that "[Defendant's] [S]eals as refurbished by [Defendant] were at fault for the entire Compressor trip and shut down, and with it, adversely impacting the plant's rubber production") with (Doc. No. 53 at 10–11 (providing, in essence, that poor maintenance and the Compressors themselves, not the seal design, were the impetus for the seal failures and compressor shutdowns). The Court disagrees with Plaintiff's assertion that the conclusions in Dr. Klopp's Report are improper affirmative opinions because all eleven conclusions that Plaintiff asserts as evidence of an affirmative opinion contradict and rebut Dr. Green's assertions that the design of the Seals caused their failures, that the bushing seals have inherent weaknesses, and that the Compressors shut down due to seal failures.

The Court will grant Plaintiff's request to limit Dr. Klopp's testimony to rebuttal testimony because both parties agree that Dr. Klopp's purpose is to rebut and refute the testimony of Dr. Green; however, the Court concludes that the opinions of Dr. Klopp presented in his report do not exceed the scope of rebuttal expert testimony. See (Doc. Nos. 48 at 18–19; 49 at 5, 7, 23–

25). Accordingly, the Court will deny Plaintiff's Motion to Exclude the Testimony and Report of Dr. Klopp. The Court turns to Defendant's Motion to Exclude the Report, Testimony, and Opinions of Mr. Hall.

C. Defendant's Motion to Preclude the Expert Reports, Testimony, and Opinions of Mr. Hall

Defendant seeks the exclusion of Mr. Hall's reports, testimony, and opinions on the grounds that he provides an opinion on the law and legal standards that is unhelpful to the trier of fact, and improvidently "substitutes an expert's judgment for the jury's [judgment]." (Doc. No. 45 at 5.) However, Plaintiff clarifies that it does not seek to offer Mr. Hall's reports to the jury, but rather submits his reports to the Court under Federal Rule of Civil Procedure 44.1. (Doc. No. 51 at 6.) Accordingly, the Court reviews Mr. Hall's report under the standards of Rule 44.1 rather than Federal Rule of Evidence 702.

1. Legal Standards under Rule 44.1

Federal Rule of Civil Procedure 44.1 governs the Court's determination of foreign law and states:

> A party who intends to raise an issue about a foreign country's law must give notice by a pleading or other writing. In determining foreign law, the court may consider any relevant material or source, including testimony, whether or not submitted by a party or admissible under the Federal Rules of Evidence. The court's determination must be treated as a ruling on a question of law.

See Fed. R. Civ. P. 44.1. In accordance with Rule 44.1, courts may rely upon their own research and/or the submissions by the parties, when considering foreign law. See Nat'l Group for Commc'ns & Comput., Ltd. v. Lucent Techs. Int'l, Inc., 331 F. Supp. 2d 290, 294 (D.N.J. 2004). The most common way courts determine foreign law is through expert testimony. See Inter Medical Supplies, Ltd. v. EBI Medical Systems, Inc., 181 F.3d 446, 459 (3d Cir. 1999). "The use of an expert report to assist the Court in its determination of foreign law is entirely different from

use of an expert report, pursuant to [Federal Rule of Evidence] 702, [] to aid the jury in determining the facts." HFGL Ltd. v. Alex Lyon & son Sales Managers and Auctioneers, Inc., 264 F.R.D. 146, 149 (D.N.J. 2009) (internal quotations omitted).

2. The Proposed Foreign Law Report of Mr. Hall

Plaintiff argues that this case is governed by Ontario law. (Doc. No. 51 at 5.) Plaintiff tenders the report of Mr. Hall "to aid the Court in its determinations" on the laws of the province of Ontario with respect to breach of contract, breach of warranty, and negligence. (Id.) Mr. Hall's report concludes the following:

> In this case, the elements of breach of contract are established. The Contracts are valid and subsisting. [Dr.] Green['s] Report establishes that [Defendant] has failed to perform its obligations under the [c]ontracts. [Defendant] has failed to design, refurbish, and repair the [S]eals in a good and workmanlike manner to be free of defects, contain no contaminants, and be fit and sufficient for the purposes intended. The expectation damages flowing from that breach are as set out in [Mr. Wolf's] Report. Consequently, under Ontario law, [Defendant] is liable to Arlanxeo for breach of contract in the amount set out in [Mr. Wolf's] Report.
>
> In this case, the implied conditions as to quality or fitness arise and have been breached. [Dr.] Green['s] Report establishes that [Defendant] supplied seals that were not reasonably fit for their purposes and were not of merchantable quality. [Defendant] failed to design, refurbish and repair the seals in a good and workmanlike manner to be free of defects, contain no contaminants, and be fit and sufficient for the purposes intended. This constitutes a further breach of the [c]ontracts, leading to the same liability as set out under the heading "Breach of Contract." Consequently, under Ontario law, [Defendant] is liable to Arlanxeo for breach of warranty [].
>
> In this case, the elements of negligence are established. A manufacturer clearly owes a duty of care to the ultimate user of the manufactured goods, and as a result [Defendant] owed Arlanxeo a duty of care. [Dr.] Green['s] Report establishes that there has been a breach of the standard of care by [Defendant]. [Mr.] Wolf['s] Report demonstrates that Arlanxeo has suffered damages. [Dr.] Green['s] Report also establishes causation. Consequently, under Ontario law, Kaydon is liable to Arlanxeo for negligence in the amount set out in [Mr.] Wolf['s] Report.
>
> In my opinion, under Ontario law, and based on the assumptions set out above, Arlanxeo has standing to assert the causes of action and recover the damages alleged in the Complaint and as further described and quantified [].

(Doc. No. 51-1 at 8–10 (cleaned up).) In his reply report, Mr. Hall also concludes the following:

> In my opinion, under Ontario law Arlanxeo is able to recover the Arlanxeo Singapore [d]amages and the Arlanxeo Switzerland [d]amages from [Defendant] on three independent bases: (1) pursuant to the Assignment agreement; (2) by application of the transferred loss principle; and (3) by application of the principle that amounts paid as a settlement as a result of a breach of contract constitute damages for that breach of contract.
>
> As a result, under Ontario law Mr. Pocalyko's criticism that Arlanxeo's damages expert of analyzed sales volumes and pricing for Arlanxeo Singapore and Arlanxeo Switzzerland but not Arlanxeo itself is misplaced and irrelevant.
>
> Further, in my opinion, under Ontario law, the Insurance Proceeds must not be deducted from the damages recoverable by Arlanxeo from Kaydon, on two independent bases: (1) pursuant to the Insurance Settlement Agreement, the insurer assigned its subrogation rights to Arlanxeo; and (2) by virtue of the private insurance exception to the rule against double recovery.

(Doc. No. 42-6 at 10–11.)

3. Mr. Hall's Report and Opinions on Ontario Contract and Tort Law

In its motion, Defendant argues that Mr. Hall's opinion and report solely concern Ontario law and applying Ontario law to the facts of this case. (Doc. No. 45 at 5–7, 15.) Opposingly, Plaintiff argues that Mr. Hall's opinion and report are submitted not pursuant to Federal Rule of Evidence 702 but rather under Federal Rule of Civil Procedure 44.1 (Doc. No. 51 at 10), which permits courts to consider relevant materials, sources, or testimony when determining foreign law, see Fed. R. Civ. P. 44.1. Plaintiff also argues that Defendant should be barred from using a foreign law expert in this case because it "failed to disclose any expert witness on Ontario law in accordance with the requirements of [Rule] 26." (Doc. No. 51 at 6.) In Defendant's reply brief, Defendant asserts that: (1) Plaintiff misled Defendant by asserting that Mr. Hall's opinions and reports were being submitted pursuant to Rule 26; (2) Plaintiff should compensate Defendant for its costs and fees in taking the deposition of Mr. Hall and in preparing and filing this motion; (3)

the Court should preclude Mr. Hall's report and opinion because it goes beyond the bounds of Rule 44.1 by stating legal opinions that apply the foreign law to the facts of the case; and (4) Defendant should not be precluded from filing affidavits on foreign law because Rule 26 deadlines do not apply to Rule 44.1. (Doc. No. 54 at 9, 13, 15.)

The Court will deny Defendant's Motion to Preclude the Expert Reports, Testimony, and Opinions of Mr. Hall but will disregard the portions of the testimony and report that apply the law of Ontario to the facts of the case. First, both parties agree that Mr. Hall's report and opinions are submitted pursuant to Federal Rule of Civil Procedure 44.1 rather than Rule 702. (Doc. Nos. 51 at 6; 54 at 12–13 (reasoning that Defendant itself wasted time and effort because Mr. Hall's report was submitted pursuant to Rule 44.1 and not Rule 26 and Rule 702).) Therefore, Defendant's motion to preclude on the basis of Rule 702 is inapplicable. Second, as to impermissible conclusions and assertions in Mr. Hall's opinions and reports, the Court agrees with Defendant that they do not comport with Rule 44.1. (Doc. No. 54 at 13.) Defendant asserts that Mr. Hall's opinions and report, in Mr. Hall's own words, "apply the law to the facts, [to] then reach[] his opinions." (Id. at 14.) Defendant offers several examples of conclusions that Mr. Hall includes in his report including the following: (1) "under Ontario law, [Defendant] is liable to Arlanxeo for breach of contract in the amount set out in [] [Mr.] Wolf['s] Report"; (2) under Ontario law, [Defendant] is liable to Arlanxeo for negligence in the amount set out in [] [Mr.] Wolf['s] Report"; (3) "under the law of Ontario, Arlanxeo is entitled to recover the Arlanxeo Singapore Damages and the Arlanxeo Switzerland Damages;" and (4) "under the law of Ontario, the Insurance Proceeds [sic] must not be deducted from the damages recoverable by Arlanxeo from [Defendant]." (Id. at 14–15.)

The Court agrees with Defendant that the conclusions presented in Mr. Hall's Report go beyond a recitation of the law of Ontario because they provide opinions that apply the law to the facts of the case and give an ultimate resolution of the case, which "invade[] the province of the fact finder and [] [are] not an appropriate function of expert testimony under Rule 44.1." See ID Sec. Sys. Canada, Inc. v. Checkpoint Sys., Inc., 198 F. Supp. 2d 598, 623 (E.D. Pa. 2002). However, the Court will not preclude Mr. Hall's expert opinions and reports in their entirety because, as other courts in this Circuit have held, the parts of Mr. Hall's expert opinions and reports that do not impermissibly invade the province of the fact finder are relevant and would assist this Court in determining the substantive law of Ontario, provided that Ontario law applies in this case. See, e.g., HFGL Ltd., 264 F.R.D. at 149–50 (allowing the admission of portions of an expert's report on English law that do not seek to guide the court in determining the facts); ID Sec. Sys. Canada, Inc., 198 F. Supp. 2d at 623 (allowing the admission of portions of an expert's report on Ontario law that do not seek to guide the court in determining the facts). Accordingly, the Court finds that portions of Mr. Hall's report and opinions are relevant materials for determining foreign law and admissible for consideration by the Court under Rule 44.1.

As to Plaintiff's request to bar Defendant from using a foreign law expert, the Court will deny that request. Plaintiff's request to bar Defendant from using a foreign law expert is based on Defendant's failure to submit a timely report pursuant to Rule 26. (Doc. No. 51 at 6.) Defendant argues that Rule 26 does not apply to Rule 44.1 expert reports. (Doc. No. 54 at 15–16.) The Court concludes that Rule 26 does not apply to Rule 44.1 because the plain language of Rule 26 states that disclosure concerns "any witness [a party] may use at trial to present evidence under Federal Rule of Evidence 702, 703, or 705." See Fed. R. Civ. P. 26(a)(2)(A). Here, Mr. Hall's report is submitted neither for trial nor under Rule 702, 703, or 705, but rather to the Court

under Rule 44.1. Therefore, any rebuttal report provided by Defendant would likewise be submitted to the Court under Rule 44.1, which means that Rule 26 deadlines do not apply. Other courts agree that submissions provided to a court under Rule 44.1 are not governed by Rule 26 deadlines. See, e.g., Clarke v. Marriott Int'l, Inc., 403 F. Supp. 3d 474, 480 (D.V.I. 2019) (holding that parties' submissions of foreign law expert reports pursuant to Rule 44.1 are not bound by the expert witness disclosure deadlines of Rule 26(a)(2)); De Fernandez v. Seaboard Marine, Ltd., No. 20-cv-25176, 2022 WL 2869730, *9 (S.D. Fla. July 21, 2022) (agreeing that foreign law experts under Rule 44.1 are not required to be disclosed in compliance with Rule 26). Accordingly, the Court will deny Plaintiff's request to bar Defendant from using a foreign law expert.

As to Defendant's request that Plaintiff to compensate Defendant, the Court will deny that request. The Court acknowledges that Defendant incurred costs and fees when deposing Mr. Hall and preparing this motion to preclude Mr. Hall pursuant to Rule 702. (Doc. No. 54 at 13.) However, the Court finds that the deposition of Mr. Hall is not grounds for compensation when that deposition is part of the process applicable to Rule 44.1 experts. See Forrestal Guarani S.A. v. Daros Int'l, Inc., No. 03-cv-04821, 2012 WL 13187472, *9 (D.N.J. Apr. 2, 2012) ("Th[e] burden [of demonstrating a foreign law's content under Rule 44.1] is met by proper, timely notice of foreign law experts followed by expert reports, responsive expert reports from the other party, and expert depositions."). Moreover, the Court finds that the cost and fees associated with preparing a motion to preclude Mr. Hall's reports, testimony, and opinions do not constitute grounds for compensation because the motion ultimately served as the mechanism by which Defendant could seek to have the Court disregard certain portions of Mr. Hall's report from consideration.

Accordingly, the Court will deny Defendant's Motion to Preclude the Expert Reports, Testimony, and Opinions of Mr. Hall, but the Court will disregard the portions of Mr. Hall's testimony and report that apply the law to the facts of this case, deny Plaintiff's request to bar Defendant from using a foreign law expert, and deny Defendant's request to compel Plaintiff to compensate Defendant for Defendant's costs and fees in taking the deposition of Mr. Hall and in preparing and filing this motion. The Court turns to Defendant's Motion to Preclude the Expert Report, Testimony, and Opinions of Mr. Wolf.

D. Defendant's Motion to Preclude the Expert Report, Testimony, and Opinion of Mr. Wolf

1. The Proposed Damages Report of Mr. Wolf

To prove damages, Plaintiff offers Mr. Wolf as an expert witness who calculated damages it incurred. (Doc. No. 50 at 6.) Defendant seeks the exclusion of Mr. Wolf's report, testimony, and opinions on the grounds that Mr. Wolf lacks qualifications in accounting, his methodology unreliably makes assumptions about decreases in sales, and his calculations fail to fit because they do not include the lost profits of Arlanxeo Canada. The report proffered by Mr. Wolf ("Mr. Wolf's Report") as to the damages calculations concludes as follows:

> On account of the impacts caused by [Defendant's] defective [S]eals, Arlanxeo suffered lost profits from overall lost sales for the period from 16 October[,] 2019 through May[,] 2021 when reliable continuous butyl production was finally resumed, and inventory levels were restored. In addition, and as a result of the seal failures, Arlanxeo also incurred substantial incremental repair expenses during this period and suffered incremental manufacturing costs.
>
> Based on our analyses in Section 4, 5 and 6 above, Arlanxeo's damages are summarized [as] follow[s]: Lost Profits $31,019,044; Operational Costs for Investigation and Repairs $6,869,291; Demurrage $528,766; Utilities $965,037; Total $39,382,138.

(Doc. No. 50-1 at 39.) Mr. Wolf also prepared a reply report in response to the rebuttal expert report of Paul W. Pocalyko which concludes the following:

> As noted throughout Section 2 above, I generally disagree with the critiques of my First Expert Report offered by Mr. Paul W. Pocalyko of HKA in his Rebuttal Expert Report dated 12 January[,] 2024. Moreover, I note that Mr. Pocalyko did not present any alternative damage calculations based on his critiques. Accordingly, I maintain my opinions summarized in Section 3 of my First Expert Report.
> …
>
> In sum, it continues to be my opinion, as a direct result of the impacts caused by [Defendant's] defective [S]eals, Arlanxeo suffered lost profits from overall lost sales for the period from 16 October[,] 2019 through May[,] 2021 when reliable continuous butyl production was finally resumed, and inventory levels were restored. In addition, and as a result of the seal failures, Arlanxeo incurred substantial incremental investigation and repair expenses during this period and suffered incremental manufacturing costs.
>
> Based on our analyses in Section 4, 5 and 6 above, Arlanxeo's damages are summarized [as] follow[s]: Lost Profits $31,019,044; Operational Costs for Investigation and Repairs $6,869,291; Demurrage $528,766; Utilities $965,037; Total $39,382,138.

(Doc. No. 50-2 ¶¶ 3.1–3.4.) Mr. Wolf notes in his reply report that his damages calculations "encompasses all of Arlanxeo's sales of butyl products shipped from all of Arlanxeo's manufacturing facilities worldwide." (Id. ¶ 2.8.2.)

2. Analysis

In its motion, Defendant argues that Mr. Wolf's opinions should be excluded because: (1) Mr. Wolf has "zero accounting experience, education, training, or certifications"; (2) Mr. Wolf's report and opinions do not fit the case as they fail to calculate lost profits for Arlanxeo Canada and instead calculate lost profits for Arlanxeo Switzerland, Arlanxeo Singapore, Arlanxeo Brazil, and Arlanxeo USA; and (3) Mr. Wolf's methodology assumes that the decrease in sales in 2020 through 2021 was "attributable to the compressor failures (and not for other business reasons or meaningfully due to Covid) and fails to review Arlanxeo Canada's financial statements or tax returns or audit any sales reports." (Doc. No. 47 at 13–14, 18, 22, 24.)

In response, Plaintiff asserts that Mr. Wolf's opinions should not be precluded because: (1) Mr. Wolf is qualified based on his forty-five (45) year career "where he has provided quantum and loss profit analyses for companies in the industrial manufacturing space"; (2) Mr. Wolf's report and opinions are entitled to assume liability and the governance of Ontario law, which allows for Arlanxeo "to recover the lost profits of its affiliates"; and (3) Mr. Wolf's methodology accounts for Covid in his calculations and considers Arlanxeo Canada's financial statements just not for lost sales ("Arlanxeo Canada does not have any lost sales"). (Doc. No. 50 at 13, 19, 21, 23–24.)

Upon review of Mr. Wolf's Report and the briefs of the parties, the Court will deny Defendant's Motion to Exclude the Report, Testimony, and Opinions of Mr. Wolf without prejudice to its ability to refile the motion after any dispositive motions are resolved because Mr. Wolf's opinions rely on the applicability of Ontario law to this dispute, an issue which the Court has not yet resolved. Plaintiff asserts that the law of the Province of Ontario applies to its claims, whereas Defendant argues that the law of the state of Pennsylvania or Michigan applies. (Doc. No. 1 ¶ 21 (asserting that Ontario law applies to Plaintiff's Purchase Orders); Doc. Nos. 6 ¶ 21 (denying Plaintiff's assertion that Ontario law applies to Plaintiff's Purchase Orders); 45 at 5 n.1 (arguing that Pennsylvania law or Michigan law might apply instead of Ontario law).) Although the conflict of law issue was noticed in Plaintiff's complaint (Doc. No. 1 ¶ 21), as required under Rule 44.1, see Fed. R. Civ. P. 44.1, Defendant asserts that it intends to raise the issue "with its forthcoming motion for summary judgment" (Doc. No. 45 at 5 n.1). Therefore, the Court has not had the opportunity to determine which jurisdiction's law applies to this dispute. Accordingly, the Court will deny Defendant's Motion to Preclude the Expert Report, Testimony, and Opinions

of Mr. Wolf without prejudice to its ability to refile the motion after the Court's resolution of any dispositive motion.

IV. CONCLUSION

For all of the foregoing reasons, the Court will deny Defendant's Motions to Preclude the Expert Reports, Testimony, and Opinions of Dr. Green, Mr. Hall, and Mr. Wolf and will deny Plaintiff's Motion to Exclude the Testimony and Report of Dr. Klopp. An appropriate Order follows.